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| **Time Period** | **Units of Study** | **Overview** |
| **First**  **Marking**  **Period**  **September**  **Mid-November** | Geology | Students will describe scientific methods and learn how to define science and Earth science. They will compare and contrast scientific theories and laws. They will discuss the different landform and learn about latitude and longitude. Students will also differentiate a mineral from a rock and learn about the three types of rocks and its rock cycle.  They will recognize weathering and identify the process the processes that mechanically and chemically change rock. They will learn how soil evolves and how fossil formed. Students will also learn about continental drift, seafloor spreading and the Theory of Plate Tectonics. Lastly, they will learn about earthquakes. |
| **Second**  **Marking**  **Period**  **Mid November 2009 –**  **End of December**  **Third**  **Marking**  **Period**  **January 2010 –**  **April 2010** | Interactions between  Matter and Energy  Dynamic Equilibrium: The Human Animal | Students will study waves, sound wave and light. They will distinguish between loudness and sound intensity and will identify the properties of light waves. They will compare and contrast physical properties and chemical properties of a material or substance. They will list the four states of matter and understand the Law of Conservation of Mass.  They will describe the characteristics of matter as well as identify parts of an atom. They will learn about solution, solubility, and acidic and base solutions.  Lastly, students will learn about chemical formulas and Equations and Rates of Chemical Reactions  Students will discuss cell theory and will identify parts of animal and plant cells. They will identify the part of a skin and will explain its functions. They will also study the muscular system and skeletal systems. They will describe the basic structure of a nervous system.  Students will compare and contrast arteries, veins and capillaries identifying also the parts and function of blood. They will describe the functions of the pulmonary and systemic circulation systems. Lastly, they will compare and contrast mechanical and chemical digestion and will distinguish the six classes of nutrients. |
| **Fourth**  **Marking**  **Period**  **May 2010 –**  **June 2010** | Dynamic Equilibrium: Other Organisms  Science Fair | Students will identify the characteristics of animals and will differentiate between vertebrates and invertebrates. They will compare and contrast sponges and cnidarians. They will list the characteristics of chordates, amphibians, reptiles, birds and mammals.  Students will identify characteristics common to all plants and will explain plant adaptations. They will learn about seedless plants and seed plants. They will learn about the plant processes and will  explain how plants take in and give off gases. Lastly, students will study bacteria, protests and fungi. They will identify their characteristics and classify them into groups. |

**By the end of the First Marking Period, November 19, 2009, each student will be able to:**

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|  | Describe Scientific Methods. |
|  | Describe folded, up-warped, fault-block, and volcanic mountains. |
|  | Explain how latitude and longitude are used to identify locations on Earth. |
|  | Describe how different types of sedimentary rocks form. |
|  | Explain how all rocks are linked by the rock cycle. |
|  | Identify agents of erosion. |
|  | Describe several processes of fossil formation. |
|  | Describe methods used to assign relative ages to rock layers. |
|  | Identify evidence supporting continental drift. |
|  | Compare and contrast different types of plate boundaries. |
|  | Explain how the locations of volcanoes and earthquake epicenters are related to tectonic plate boundaries. |

**By the end of the Second Marking Period, February 2010, each student will be able to:**

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|  | Distinguish among transverse, compressional, and electromagnetic waves. |
|  | Describe how sound waves. |
|  | Identify physical properties of matter. |
|  | Identify chemical changes. |
|  | Describe the characteristics of matter. |
|  | Describe the relationship between elements and the periodic table. |
|  | Distinguish between substances and mixtures. |
|  | Compare acids, bases and their properties. |
|  | Determine how to read and understand a balanced chemical equation. |
|  | Determine how to describe and measure the speed of a chemical reaction. |

**By the end of the Third Marking Period, April 2010, each student will be able to:**

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|  | Identify some of the parts of animal and plant cell. |
|  | Discuss how different cells have different jobs. |
|  | Distinguish between the epidermis and dermis of the skin. |
|  | Compare and contrast the three types of muscle. |
|  | Identify five functions of the skeletal system. |
|  | Compare and contrast arteries, veins and capillaries. |
|  | Identify the parts and functions of blood. |
|  | Describe functions of the lymphatic system. |
|  | Distinguish the differences between mechanical digestion and chemical digestion. |
|  | Distinguish among the six classes of nutrient and identify its importance. |
|  | Describe the function of the respiratory system. |

**By the end of the Fourth Marking Period, June 2010, each student will be able to:**

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|  | Differentiate between vertebrates and invertebrates. |
|  | Describe the structures that make up sponges and cnidarians. |
|  | List the features used to classify arthropods. |
|  | Identify the major characteristics of chordates. |
|  | Describe how amphibians have adapted to live in water and on land. |
|  | Identify the characteristics common to all mammals. |
|  | Explain which plant adaptations make it possible for plants to survive on land. |
|  | Explain the structures and functions of roots, stems and leaves. |
|  | Compare and contrast photosynthesis and respiration. |
|  | Identify the relationship between a stimulus and a tropism in plants. |
|  | Identify the characteristics of bacterial cell. |

### First Marking Period: September 2009 – Mid- November 2009

**Unit of Study:** Geology

**Resources:** *New York Science Grade 7*

**Supplemental**

**Texts:** Reading Essentials Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | Describe scientific methods. | Students will show and describe the steps of a scientific method in the flow chart. | **Standard 2-Information Systems**: Students will access, generate, process, and transfer information, using appropriate technologies. | **Kinesthetic/Tactual**: Students will make a four-tab Foldable and write what they learned about independent variables, dependent variables, constants and controls.  **Auditory**:Students will explain and give examples of transferable technology.  **Visual**: Students will make a mark on the map the areas where the earthquake might occur. |
|  | a. Describe folded, un-warped, fault-block, and volcanic mountains.  **LAB** – b. Draw conclusions from experimentation with pendulum. | a. Students will describe the differences between folded, un-warped, fault-block and volcanic mountains in a chart.  b. Students will observe how variables affect the swing of a pendulum. | a. **Standard 2-Information Systems**: Students will access, generate, process, and transfer information, using appropriate technologies.  b. **Standard 1- Analysis, Inquiry and Design**: Students will use mathematical analysis, scientific inquiry, and engineering design as appropriate, to pose questions, seek answers and develop solution. | a. **Kinesthetic/Tactual**:Students willmake a layered book from sheets of paper to record differences among major landforms. Auditory: Students will explain why the Great Plains is called the High Plains? **Visual:** Students will **c**lassify and list the terms found on the map that are used to name the landforms.  b. **Kinesthetic/Tactual**: Students will manipulate the variables of a pendulum.  **Auditory**:Students will explain the effect of the angle of the drop of the pendulum on the swings per minute and which variables did they keep constant?  **Visual**: Students will graph the data from their tables, title and label the graphs and compare it with other members of the class. |
|  | a. Explain how latitude and longitude are used to identify locations on Earth.  **LAB** - b. Draw a topographic map. | a. Students will locate the equator and the prime meridian.    b. Students will make a topographic map from a landform model. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 1- Analysis, Inquiry and Design**: Students will use mathematical analysis, scientific inquiry, and engineering design as appropriate, to pose questions, seek answers and develop solution. | a. **Kinesthetic/Tactual**:Students will make a ten-tab vocabulary Foldable to help them learn about some of the terms.  **Auditory**:Students will discuss differences between longitude and latitude.  **Visual**: Students will locate, highlight or trace over the equator, longitude and latitude of certain areas. b. Kinesthetic/Tactual: Students will make models of topographic map. **Auditory**: Students will explain how elevations are shown in topographic maps. Visual: Students will interpret data. |

### First Marking Period: September 2009 – Mid- November 2009

**Unit of Study:** Geology

**Mandated Text:** *New York Science Grade 7*

**Supplemental**

**Texts:** Reading Essentials Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | a. Describe how different types of sedimentary rocks form.  **LAB** – b. Model a metamorphic rock texture. | a. Students will describe and write information about sedimentary rock in the two column notes.  b. Students will demonstrate how pressure causes a realignment of mineral grains, forming a metamorphic rock. | a. **Standard 4**-The Physical Setting: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a Foldable and organize information about rocks made from lava and magma.  **Auditory**: Students will discuss what must happen to water in order for its dissolved minerals to be deposited. Visual: Students will identify and trace the path and location where extrusive igneous rock forms. b. **Kinesthetic/Tactual**: Students will sketch the granite specimen.  **Auditory:** Students will explain what force caused the positions of rice grains in the lump of clay to change.  **Visual:** Students will interpret scientific illustrations of rice grains in clay to see how foliation is produced. |
|  | a. Explain how all rocks are linked by the rock cycle.  **LAB** – b. Test and observe important mineral characteristics. | a. Students will identify the name of the rocks in the rock cycle and show how the rocks change.  b. Students will test a variety of mineral samples and use a field guide to identify each sample. | a. **Standard 4**-The Physical Setting: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make and organize a Foldable of how rocks change.  **Auditory**: Students will discuss magma as the source of all rocks on Earth. Visual: Students will identify and draw the rock cycle. b. **Kinesthetic/Tactual**: Students will observe sample minerals and conduct appropriate tests to complete the data table.  **Auditory**: Students will explain which characteristics were easy to determine and which were somewhat more difficult.  **Visual:** Students will create a visually appealing poster showing the minerals. |

### First Marking Period: September 2009 – Mid-November 2009

**Unit of Study:** Geology

**Resource:** *New York Science Grade 7*

**Supplemental**

**Texts:** Reading Text Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | a. Describe several processes of fossil formation.  **LAB** - b. Interpret illustrations of rock layers and other geological structures and determine the relative order of events. | a. Students will identify the processes of fossil formation.  b. Students will determine the relative order of events by interpreting geologic cross section. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a Foldable and compare and contrast the ways the fossils are preserved.  **Auditory:** Students will explain one reason why hard parts of organisms have better chance of becoming fossils than soft parts do.  **Visual:** Students will interpret the fossil range chart (Page 63 on Reading Essentials Grade 7).  b. **Kinesthetic/Tactual:** Students will formulate models of rock layers.  **Auditory:** Students willdescribe how the rocks above the fault moved in relation to rocks below **t**hefault and the relative ages of the two igneous intrusions.  **Visual:** Students willinterpretscientific illustrations of Figure A – identify the relative age of each rock layer, igneous intrusion, fault and unconformity. Figure B – identify the relative age of each rock layer, igneous intrusion, fault and unconformity. |
|  | a. Describe methods used to assign relative ages to rock layers.  **LAB** – b. Construct a model of trace fossils. | a. Students will identify and describe unconformities.  b. Students will research and create a model of trace fossils that shows some behaviors of animal. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual:** Students will make a three-tab foldable to compare the concept of relative age and the principle of superposition.  **Auditory:** Students will explain two ways to correlate rock layers. Visual: Students will interpret and highlight the layer of limestone in the diagram (Page 66 on Reading Essentials Grade 7). b. **Kinesthetic/Tactual:** Students will create a model that includes trace fossils.  **Auditory:** Students will describe how using different kinds of materials might have affected the fossil model.  **Visual:** Students will make a sketch of fossil model. |
|  | a. Identify evidence supporting continental drift.  **LAB** – b. Interpret data about magnetic field reversals. Use these magnetic clues to help reconstruct Pangaea. | a. Students will arrange in order the three events that took place during the continental drift.  b. Students will interpret magnetic field reversals in rock to determine the rate of seafloor spreading. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a four-door Foldable to organize facts about Alfred Wagener and continental drift.  **Auditory**: Students will give an oral report on why Wagener didn’t convince the people that his hypothesis on continental drift was right.  **Visual:** Students will find North America on each of the three drawings: 250 million years ago, 135 million years ago, and present day (Page 78 on Reading Essentials Grade 7).  b. **Kinesthetic/Tactual**:Students willmeasure the distance between a point on the east coast of the United States and the Mid Atlantic Ridge.  **Auditory:** Students will compare the age of Igneous rock found near the mid-ocean ridge with that igneous rock found farther away from the ridge.  **Visual**: Students will make graph and interpret data. |

### First Marking Period: September 2009 – Mid November 19, 2009

**Unit of Study:** Geology

**Resource:** *New York Science Grade 7*

**Supplemental**

**Texts:** Reading Essentials Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** | **Foss Kit Component** |
|  | a. Compare and contrast different types of plate boundaries.  **LAB** – b. Infer how a volcanoes opening contributes to how explosive an eruption might be. | a. Students will name the major Plates of the Lithosphere.  b. Students will investigate what determines the explosiveness of a volcanic eruption. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4**-The Physical Setting: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will complete the Foldable by writing the cause and effects of plate boundaries.  **Auditory**: Students will describe what happens when two continental plates converge.  **Visual**: Students will choose one convection current in the figure and label the arrows heating, rising, cooling and sinking (Page 88 on Reading Essentials Grade 7).  b. **Kinesthetic/Tactual**: Students will set up the experiments.  **Auditory**: Students will explain what the bubbles have to do with the explosion.  **Visual**: Students will make a graph and interpret the data. | Rocks and Minerals/plate Tectonics |
|  | a. Explain how the locations of volcanoes and earthquake epicenters are related to tectonic plate boundaries.  **LAB** – b. Demonstrate the motion of primary, secondary, and surface waves. | a. Students will describe how a volcanic island forms.  b. Students will use a coiled spring toy to show how material is affected by the waves. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will construct a three-tab foldable and organize information about divergent boundaries, convergent boundaries and hot spots.  **Auditory**: Students will explain what happens to plates that sink.  **Visual**:Students will interpret the diagram (describe the volcanoes) and trace areas where there are many volcanoes (Page 107 on Reading Essentials Grade 7) b. Kinesthetic/Tactual: Students will make models of seismic waves using yarn or string.Auditory: Students will explain which wave motion would cause most damage during earthquake. **Visual**: Students will make tables and interpret data. |  |

**Second Marking Period: November – January 31, 2010**

**Unit of Study:** Interactions between Matter and Energy

**Mandated Text:** *New York Science Grade 7*

**Supplemental**

**Texts:** Reading Essentials Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | a. Distinguish among transverse, compressional, and electromagnetic waves.  **LAB** – b. Infer what property of the materials cause the sound waves to produce a different sound. | a. Students will compare and contrast transverse waves and compressional waves.  b. Students will listen to variations in sound that travel through different materials. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a Foldable and define the vocabulary terms.  **Auditory**: Students will  **Visual**: Students will draw and label a transverse wave with small and large amplitude in two different boxes.  b. **Kinesthetic/Tactual**: Students will  follow the step by step direction of the procedure. Auditory: Students will compare the sounds made by the beaker filled with air and the beaker filled with liquids. **Visual:** Students will write the description of sound in the data table. |
|  | a. Describe how sound waves are produced.    **LAB** - b. Compare and contrast the reflection, refraction, and transmission of light. | a. Students will show the path taken by a sound wave from the time it enters the ear until the sound was heard.  b. Students will investigate the reflection and refraction of light. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4**-The Physical Setting: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a Foldable and identify the main ideas about sound. Auditory: Students will explain why a sound becomes less intense the farther you are from the object making the sound. **Visual:** Students will highlight the path a sound wave takes through the ear in the diagram (Page 122 on Reading Essentials Grade 7).  b. **Kinesthetic/Tactual**: Students will follow the step-by-step direction of the procedure.  **Auditory**: Students will explain why the beam that passes through the CD case does or does not change direction.  **Visual:** Students will make a data table and record observations. |
|  | a. Identify physical properties of matter.  **LAB** - b. Observe where solids of different densities will rest in the liquid layers. | a. Students will identify the physical properties of matter that can be used to identify a substance.  b. Students will observe the behavior of liquids and solids of different densities. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**:Students will make a Foldable then make a list of different objects and record observations of the physical properties of the chosen objects.  **Auditory**: Students will explain why the identity of water did not change when it formed ice.  **Visual:** Students will calculate the density of the objects in the table (Page 133 on the Reading Essentials Grade 7).  b. **Kinesthetic/Tactual**: Students will  follow the step by step direction of the procedure.  **Auditory**: Students will describe what happened to the five liquids when they poured them into the beaker and as to why does it behave that way. Visual: Students will draw a labeled poster of the substances they placed in their beaker. |

**Second Marking Period: November 20, 2009 – January 31, 2010**

**Unit of Study:** Interactions between Matter and Energy

**Mandated Text:** *New York Science Grade 7*

**Supplemental**

**Texts:** Reading Essentials Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | a. Identify chemical changes.  **LAB** – b. Observe whether chemical changes can be controlled. | a. Students will identify and describe chemical properties.  b. Students will observe and participate in controlling a chemical change. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a Foldable to list examples of physical changes and chemical changes.  **Auditory**: Students will discuss how physical and chemical change is different. Visual: Students will make a poster of the Conservation of Mass and label the change that took place physical or chemical change (Page 143 on Reading Essentials Grade 7).Kinesthetic/Tactual: Students will set up the experiment and follow step-by-step procedure. **Auditory**: Students will make an oral report to describe the effect of refrigerating the salad to the fruit.  **Visual:** Students will make a graph and interpret data. |
|  | a. Describe the characteristics of matter.  **LAB** – b. Classify the chemical elements. | a. Students will identify and describe the characteristics of matter.  b. Students will classify elements and build a periodic table that shows their classification. | a. **Standard 4**-The Physical Setting: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a Foldable and compare and contrast the past atomic model and the present atomic model. Auditory: Students will discuss the difference between Dalton and Thompson’s atomic model. **Visual**: Students will draw Rutherford’s model of an atom.  b. **Kinesthetic/Tactual**:Students will design an index card for the selected elements. Auditory: Students will predict the properties of a yet-undiscovered element located under francium on the periodic table. **Visual:** Students will interpret the class data and classify the elements into the categories metal, metalloid and nonmetal. |
|  | a. Describe the relationship between elements and the periodic table.  **LAB** – b. Test for the presence of certain compounds. | a. Students will locate the atomic number of elements in the periodic table.  b. Students will test for certain compounds and decide which are present in a mystery mixture. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science | a. **Kinesthetic/Tactual**: Students will make a Foldable and compare and contrast metals, metalloids and nonmetal.  **Auditory**: Students will find and read the mass number of the elements.  **Visual**: Students will interpret a table and identify the number of neurons each element has. b. Kinesthetic/Tactual: Students will follow the step-by-step direction in the procedure. **Auditory**: Students will explain how they would be able to tell if all three compounds were not in their mystery compounds.  **Visual**: Students will interpret the data table. |

**Second Marking Period: November 20, 2009 – January 31, 2010**

**Unit of Study:** Interactions between Matter and Energy

**Mandated Text:** *New York Science Grade 7*

**Supplemental**

**Texts:** Reading Essentials Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | a. Distinguish between substances and mixtures.  **Chemical Interactions Foss Kit**  **LAB** – b. Observe the effect that temperature has on solubility of a gas in a liquid. | a. Students will compare and contrast the important facts on mixtures and substances.  b. Students will observe how temperature affects solubility. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will  Make a Foldable and identify the differences between H2O, C2O and CO.  **Auditory**: Students will explain how a heterogeneous mixture is different from a homogeneous mixture.  **Visual:** Students will circle the chemical formula in each figure of the elements.  b. **Kinesthetic/Tactual:** Students will follow the step-by-step direction in the procedure.  **Auditory**: Students will explain why the warmed carbonated beverage releases a different amount of carbon dioxide than the chilled one?  **Visual:** Students will Make a data table and analyze the results. |
|  | Compare acids, bases, and their properties. | Students will label the location of pure water on the PH scale (Page 178 on Reading Essentials Grade 7). | **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | **Kinesthetic/Tactual**: Students will make a Foldable to show how acids and bases are alike and different. Auditory: Students will name three acids found in nature. **Visual:** Students will make a list of the products in the figure that they have seen or used (Page 174 on Reading Essentials Grade 7). |
|  | a. Determine how to read and understand a balanced chemical equation.  **LAB** – b. Determine if a chemical or physical change took place. | a. Students will balance each equation. (Page 186 on Reading Essentials Grade 7).  b. Students will create a reaction and determine if it is a physical change or a chemical change. | a. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Physical Setting**: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual:** Students will make a Foldable and write the information about each topic.  **Auditory**: Students will explain what chemists learn from chemical equations.  **Visual:** Students will identify the number of hydrogen atoms in the figure and in the products (Page 182 on Reading Essentials Grade 7). b. Kinesthetic/Tactual: Students will follow the step-by-step- direction in the procedure. **Auditory:** Students will classify if the results were physical or chemical change.  **Visual:** Students will make a table and record data. |

**Third Marking Period: February 1, 2010 – April 14, 2010**

**Unit of Study:** Dynamic Equilibrium: The Human Animal

**Mandated Text:** *New York Science Grade 7*

**Supplemental**

**Texts:** Reading Essentials Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | Identify some of the parts of animal and plant cell.  Describe how different cells have different jobs. | Students will list the parts of animal and plant cells.  Students will identify the job of the cell parts. | **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  **Standard 4**-**The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | **Kinesthetic/Tactual**: Students will make a layered-look Foldable and list the three main ideas of the cell theory on the tabs.  **Auditory**: Students will explain why cells have many different kinds of organelles.  **Visual**: Students will identify the cell part that is a storage area. (Page 195 on Reading Essentials Grade 7).  **Kinesthetic/Tactual:** Students will make a four-tab Foldable and list facts about each level of cell organization.  **Auditory:** Students will compare the purpose of the plant’s inner and outer stem cells.  **Visual:** Students will identify the description for nerve, muscle and skin cells that describe their shape (Page 198 on Reading Essentials Grade 7). |
|  | a. Distinguish between epidermis and dermis of the skin.  **LAB** – b. Observe algal cells under a microscope. | a. Students will compare and contrast epidermis and dermis of the skin.  b. Students will use a microscope to observe organelles in algal cells. | a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a layered book and use it to describe the three layers of the skin.  **Auditory**: Students will explain what causes the coloring in bruises.  **Visual:** Students will identify the five functions of the skin**.**  b. **Kinesthetic/Tactual**: Students will follow the step-by-step direction in the procedure.  **Auditory**: Students will explain the function of chloroplasts. Visual: Students will draw a colored pictured of one of the algal cells, identifying the different organelles in the cell. |
|  | a. Compare and contrast the three types of muscles.  **LAB** – b. Observe how long it takes water to move in a plant. | a. Students will identify the three types of muscle tissue and explain the function of each.  b. Students will observe where water moves in a plant and how long it takes for plants to absorb water. | a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a three-tab Foldable and identify facts about the three types of muscle tissue.  **Auditory**: Students will explain one thing that they can do to prevent cardiovascular disease.  **Visual:** Students will use the figure to describe how muscles work by pulling, rather than by pushing (Page 208 on Reading Essentials Grade 7). b. Kinesthetic/Tactual: Students will follow the step-by-step direction of the procedure. **Auditory**: Students will present the whether the hypothesis was supported or not.  **Visual**: Students will make a data table and interpret the results. |

**Third Marking Period: February 1, 2010 – April 14, 2010**

**Unit of Study:** Dynamic Equilibrium: The Human Animal

**Mandated Text:** *New York Science Grade 7*

**Supplemental**

**Texts:** Reading Essentials Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | Identify the five functions of the skeletal system. | Students will name the five functions of the skeletal system. | **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a two-tab book Foldable to organize facts about bones and joints.  **Auditory**: Students will describe the purpose of ligament.  **Visual**: Students will use the figure to determine which kind of joint was used in the activities (Page 213 on Reading Essentials Grade 7). |
|  | **LAB** – b. Observe the sensitivity to touch on specific areas of the body.  a. Compare and contrast arteries, veins and capillaries. | b. Students design and carry out experiment to determine skin sensitivity on various parts of the body by testing for the location or receptors in the skin.  a. Students will list the differences among arteries, veins and capillaries. | b. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  a. Standard 4-The Living Environment: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of | b. **Kinesthetic/Tactual**: Students will set up the experiment.  **Auditory:** Students will present the result of the investigation.  **Visual:** Students will make a data table and write down any observations that they made and complete the data table.  a. **Kinesthetic/Tactual**: Students will make a shutter fold book and identify the four chambers of the heart. Students will include a sketch of the heart and the four chambers. Auditory: Students will explain one thing they can do to prevent cardiovascular disease. **Visual**: Students will describe the flow of blood in pulmonary circulation. |
|  | **LAB** - b. Observe the pulse rate.  a. Identify the parts and functions of blood.  **LAB** – b. Design an experiment that stimulates the reactions between different blood types. | b. Students will measure radial pulse rate and  interpret their data.  a. Students will label the parts and function of blood.  b. Students will determine how different blood types react when mixed. | b. Standard 4-The Living Environment: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and  theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | b. **Kinesthetic/Tactual**: Students will follow the step-by-step direction of the procedure.  **Auditory**: Students will describe why the pulse rate changes.  **Visual**: Students will make graphs and interpret data.  a. **Kinesthetic/Tactual**: Students will make a four-tab Foldable and describe the four parts of blood-plasma, red blood cells, white blood cells, and platelets.  **Auditory**: Students will explain what gives blood its red color. Visual: Students will identify and highlight the blood type that produces no antibodies and circle the blood type that has no antigens (Page 233 on Reading Essentials Grade 7). b. **Kinesthetic/Tactual**: Students will follow the step-by step direction of the procedure.  **Auditory**: Students will present the results of their observation.  **Visual**: Students will make a data table and record their observations. |

**Third Marking Period: February 1, 2010 – April 14, 2010**

**Unit of Study:** Dynamic Equilibrium: The Human Animal

**Mandated Text:** *New York Science Grade 7*

**Supplemental**

**Texts:** Reading Essentials Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | a. Describe functions of the lymphatic system.  **LAB** – b. Observe the vitamin C content of different orange juices. | a. Students will identify and describe the organs of the lymphatic system.  b. Students will test orange juices for vitamin C content. | a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a half-book Foldable to explain the structure and function of the lymphatic system.  **Auditory**: Students will explain what lymph nodes do.  **Visual**: Students will identify and highlight the areas of the body where lymph nods are found.  b. **Kinesthetic/Tactual**: Students will set up the experiment.  **Auditory**: Students will present the results of their investigation. Visual: Students will make a data table and interpret the results. |
|  | a. Distinguish among the six classes of nutrient and identify its importance.  **LAB** – b. Compare and contrast the dissolving rates of different sized particles. | a. Students will identify six classes of nutrient.    b. Students will observe the relationship between particle size and rate of dissolving. | a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.    b. **Standard 4**-**The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a six quarter sheets of notebook paper and write notes on the nutrients found in foods.  **Auditory**: Students will explain how their body uses carbohydrates.  **Visual**: Students will identify and highlight two minerals needed to build strong bones and teeth (Page 246 on Reading Essentials Grade 7).  b. **Kinesthetic/Tactual**: Students will set up the experiment.  **Auditory**: Students will explain how reducing the size of food particles aids the process of digestion.  **Visual**: Students will make a graph and interpret data. |

### Fourth Marking Period: April 15, 2010 – June 25, 2010

**Unit of Study:** Dynamic Equilibrium: Other Organisms

**Mandated Text:** *New York Science Grade 7*

**Supplemental**

**Texts:** Reading Essentials Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | a. Differentiate between vertebrates and invertebrates. | a. Students will compare and contrast vertebrates and invertebrates. | a. **Standard 4**-The Living Environment: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will create a circle graph and show the percentage of invertebrates and vertebrates.  **Auditory**: Students will circle any words in the diagram that they do not know. When they have finishes reading the chapter, review the words, the students will review the words they have circled and state a characteristic of each one.  **Visual:** Students will distinguish vertebrates and invertebrates through pictures using a Venn diagram. |
|  | a. Describe the structures that make up sponges and cnidarians.  **LAB** – b. Design an experiment that compares the condition of soil in two environments – one with earthworms and one without. | a. Students will compare the structures of sponges and cnidarians.  b. Students will determine whether the presence of earthworms affects soil quality. | a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a four-tab book Foldable, and take notes on what they read about the classification of animal.  **Auditory**: Students will explain why cnidarians use stinging cells.  **Visual**: Students will draw a circle around the three pictures of the medusae in the diagram (Page 265 on Reading Essentials Grade 7).  b. **Kinesthetic/Tactual**: Students will set up the experiment.  **Auditory**: Students will present the result of the investigation.  **Visual**: Students will make a data table and record the observations. |
|  | List the features used to classify arthropods. | Students will complete the concept map on arthropod classification. | **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | **Kinesthetic/Tactual**: Students will make a two-tab book Foldable and write statements or phrases about Arthropods and Echinoderms and the students will use the statements to compare these animals.  **Auditory**: Students willuse the diagram and explain how the sea star eats (Page 275 on Reading Essentials Grade 7).  **Visual**: Students will identify and circle the names of the stages that are the same for complete and incomplete metamorphosis. |

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**Supplemental**

**Texts:** Reading Essentials Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth**Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | a. Identify the major characteristics of chordates.  **LAB** – b. Research the natural habitat and basic needs of one endangered vertebrate species. | a. Students will list the major characteristics of chordates.  b. Students will determine the best environment for raising an endangered vertebrate species in captivity. | a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will use a quarter sheet of notebook paper and will define the key words: chordate, ectotherm, endotherm and cartilage.  **Auditory**: Students will explain the purpose of fish gills.  **Visual**: Students will color the skeleton of a bony fish, and label it Skeleton (Page 279 on Reading Essentials Grade 7).  b. **Kinesthetic/Tactual**: Students will design and make a model of proposed habitat for endangered vertebrate species.  **Auditory**: Students will present the result of the investigation and analyze which type of problems might exist in your design.  **Visual**: Students will make a data table and analyze the graph. |
|  | a. Describe how amphibians have adapted to live in water and on land.  **LAB** – b. Classify conifers according to their leaves. | a. Students will complete a concept web to show the adaptations of reptiles for life on water and land.  b. Students observe and classify conifer leaves. | a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will use a quarter-sheet of notebook paper to define the key words: hibernation, estivation, and amniotic egg.  **Auditory**: Students will describe two characteristics that allow amphibians to live on land.  **Visual**: Students will circle the stage of metamorphosis in which frogs are most like fish (Page 282 on Reading Essentials Grade 7).  b. **Kinesthetic/Tactual**: Students will draw conifer leaves.  **Auditory**: Students will compare and contrast pine and cedar leaves.  **Visual**: Students will observe the leaves or illustrations of each conifer, and use the key to identify it. |
|  | a. Identify characteristics common to all plants.  **LAB** - b. Use internet sites. | a. Students will make a list of the characteristics of plants.  b. Identify two plants that can be used as a treatment for illness or as a supplement to support good health. | a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a Foldable and write information on how drought will affect green algae.  **Auditory**: Students will explain what surrounds every plant cell.  **Visual**: Students will describe what green plants and algae have in common.  b. **Kinesthetic/Tactual**: Students will conduct a research about plants that are used as medicine and identify two plants to investigate.  **Auditory**: Students will describe any conflicting information about using each of these plants as medicine.  **Visual**: Students will record data they collected about plants and write a description of how different cultures have used each plant as a medicine. |

### Fourth Marking Period: April 15, 2010 – June 25, 2010

**Unit of Study:** Dynamic Equilibrium: Other Organisms

**Mandated Text:** *New York Science Grade 7*

**Supplemental**

**Texts:** Reading Essentials Grade 7 and *Concepts and Challenges in Life Science, Physical Science and Earth Science.*

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | a. Explain which plant adaptations make it possible for plants to survive on land.  **LAB** – b. Describe guard cells and stomata. | a. Students will describe four adaptations in plants that allow them to live on land.  b. Students will observe the activity of stomata in green plants. | a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4**-**The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a four-tab book Foldable and list each vocabulary word on the tabs. Inside, write a complete sentence definition of the word.  **Auditory**: Students will discuss the difference between vascular and nonvascular plants.  **Visual**: Students will identify the part of the plant that slows the loss of water.  b. **Kinesthetic/Tactual**: Students will  Follow the step-by-step direction of the procedure.  **Auditory**: Students will explain the function of stomata in a leaf.  **Visual**: Students will make a stomata table and interpret the graph. |
|  | a. Explain the structures and functions of roots, stems and leaves.  **LAB** – b. Describe how roots and stems respond to gravity. | a. Students will list the four main parts of seed plants and describe what they do.  b. Students will observe plants responses to gravity. | a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a three-tab Foldable and write notes about the importance of plant leaves, stems and roots.  **Auditory**: Students will discuss what phloem tissue do.  **Visual**: Students will identify the plant layer that contains chloroplasts and the layer that protects the leaf (Page 303 on Reading Essentials Grade 7).  b. **Kinesthetic/Tactual**: Students will set up the experiment and follow the step-by-step direction of the procedure.  **Auditory**: Students will present the result of the investigation.  **Visual**: Students will make data table and interpret graphs. |
|  | a. Compare and contrast photosynthesis and respiration.  **LAB** – b. Observe the differences among algae, protozoan, and slime molds. | a. Students will write one or two sentences to explain the difference between photosynthesis and respiration.  b. Students will observe the differences and similarities between algae and protozoan. | a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will use two quarter-sheets of notebook paper to take notes about photosynthesis.  **Auditory**: Students will determine what photosynthesis adds to Earth’s atmosphere.  **Visual**: Students will circle the part of the cell where aerobic respiration occurs and highlight the waste products of respiration.  b. **Kinesthetic/Tactual**: Students will follow the step-by-step direction of the procedure.  **Auditory**: Students will discuss which protests had animal-like and plant-like characteristics.  **Visual**: Students will make data table and interpret graphs. |

### Fourth Marking Period: April 15, 2010 – June 25, 2010

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**Supplemental**

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| **Time Period** Module | **Objectives**  **(Behaviors)** | **Activities**  **(Conditions)** | Standards **(Connections)** | **Learning Styles**  **(Approaches)** |
|  | a. Identify the relationship between a stimulus and a tropism in plants.  **LAB** – b. Describe the role of bacteria in the process of making yogurt. | a. Students will write a sentence about the relationship of stimulus and a tropism on plants.  b. Students will discover how bacteria are used to make yogurt. | a. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.  b. **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | a. **Kinesthetic/Tactual**: Students will make a two-tab Foldable to compare inside and outside stimuli.  **Auditory**: Students will explain how abscisic acid affects plants.  **Visual**: Students will use the figure to describe how auxin affects a plant’s response to light (Page 314 on Reading Essentials Grade 7).  b. **Kinesthetic/Tactual**: Students will follow the step-by-step direction of the procedure.  **Auditory**: Students will present the result of the investigation.  **Visual**: Students will write a description of the yogurt making and the role that bacteria play in the process. |
|  | Identify the characteristics of bacterial cell. | Students will list the characteristics of bacteria. | **Standard 4-The Living Environment**: Students will understand and apply concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. | **Kinesthetic/Tactual**: Students will make a three-tab Foldable and describe how bacteria affect your health, industry, and the environment.  **Auditory**: Students will discuss two ways consumer bacteria get food.  **Visual**: Students will identify and write cocci, bacilli, or spirilla on the line under the appropriate picture (Page 318 on Reading Essentials Grade 7). |